CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
81 Higuera Street, Suite 200
San Luis Obispo, California 93401-5427

SWIS No. 40-AA-0001

ORDER NO. 95-33

WASTE DISCHARGE REQUIREMENTS FOR CITY OF EL PASO DE ROBLES, PASO ROBLES CLASS III SOLID WASTE DISPOSAL SITE, SAN LUIS OBISPO COUNTY

The California Regional Water Quality Control Board, Central Coast Region (hereafter Board), finds that:

1. The City of Paso de Robles (hereafter "Discharger") owns and operates the Paso de Robles Class III Landfill (hereafter "Landfill").

2. The 80 acre Landfill is located approximately eight miles east of the City of Paso de Robles along state highway 46 in the west half of the southwest quarter of Section 13, Township 26 South, range East, Mount Diablo Base and Meridian, in the County of San Luis Obispo, as shown on **Attachment "A"** included as part of this Order. This area is also defined as San Luis Obispo County Assessor's Parcel Number 008-401-004.

3. This Waste Discharge Requirements Order(Order) is being revised/updated to incorporate criteria currently applicable to solid waste disposal sites, particularly:

   a. criteria established in California Code of Regulations, Title 23, Division 3, Chapter 15 (Chapter 15), including Article 5, pertaining to landfill water quality monitoring and response programs, as amended July 1, 1991; and

   b. criteria established in 40 CFR Parts 257 and 258 Solid Waste Facility Disposal Criteria, Final Rule (Known as "Subtitle D"), as promulgated October 9, 1991.

4. This Order replaces Order No. 88-33, as adopted on May 6, 1988. Order No. 88-33 regulated all waste discharges to the Landfill. Additionally, this Order is intended to cover all items of Order No. 93-84 adopted by the Board on October 8, 1993. Implementation of applicable revised Article 5 monitoring requirements and various other pertinent landfill changes, including compliance with other State and Federal landfill regulations, will bring the Landfill into compliance with current landfill requirements.

Physical Description: Geology

5. Land use within 1000 feet of the Landfill includes non-irrigated range land and open space

6. The Landfill site is located in the rolling hills of an upland area in the Paso Robles basin, one mile east of the Estrella River. The site is situated at a terrace area elevated approximately 300 feet above the elevation of the Estrella River. Ground surface elevations range from 1,000 to 1,200 feet above mean sea level at the site.

7. The Discharger's data demonstrate natural geologic materials between the base of the Landfill's Waste Management Unit(s) and ground water cannot ensure that degradation of beneficial uses of ground water beneath or adjacent to the Landfill will not occur.

8. The site is underlain by the Paso Robles Formation, which consists of a few discrete sand and gravel lenses inter-bedded with predominately massive clay deposits. Permeability for clay layers is in the 10^{-6} centimeters per second range while the sand/gravel lens have a much higher permeability, typically in the 10^{-2} centimeters per second range.

9. The San Andreas fault lies 14 miles east of the site. The Most Probable Earthquake along the San Andreas is expected to generate a maximum ground acceleration of .272g.

Water Resources

10. The site is located in the Estrella River Hydrogeologic Unit. Surface drainage is diverted around the landfill and collected in onsite sediment basins. Outflow from the basins travels east to the Estrella River. No part of the landfill property is within the 100 year flood plain.

11. The site is underlain by approximately 1100 feet of Paso Robles Formation consisting of clay layers intermixed with sand and gravel lenses. Ground water underlying the site is typically first encountered at a depth of over 300 feet. Ground water flow is generally to the west at a gradient of .017 foot/foot.

12. The site has three ground water monitoring well and one supply well as shown on **Attachment B.** Known domestic and irrigation wells which exist within one mile of the site are shown on **Attachment C.**

13. Ground water in outlying areas is generally of good quality for domestic and agricultural uses. Considerable variability in water quality has been documented in the vicinity of the site. Average quality of ground water considered upgradient of the site, using MW-2 1993 averages, is as follows:

Total Dissolved Solids	487	mg/l
Calcium	49.5	mg/l
Chloride	110	mg/l
pH	7.5	
Temperature	22°	celsius

14. Soil samples, taken in the unsaturated zone during the installation of MW-3, indicated the presence of volatile organic compounds. A soil sample collected at a depth of 20 feet below ground surface indicated tetrachloroethene, toluene, and xylenes, all concentrations were less than 10 parts per billion. A soil sample collected at a depth of 40 feet was found to be free of volatile organic compounds. Ground water at MW-3 exists at a depth of approximately 250 to 280 feet. Impact to ground water has never been verified at the site.

Beneficial Uses

15. The Water Quality Control Plan, Central Coast Basin (Basin Plan), was adopted by the Board on November 17, 1989, and approved by the State Water Resources Control Board on August 16, 1990. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State Waters. This Order implements the water quality objectives stated in that Plan.

16. Present and anticipated beneficial uses of surface waters down gradient of the discharge include:

    a. municipal and domestic supply;
    b. ground water recharge;
    c. non-contact water recreation;
    d. warm freshwater habitat;
    e. agricultural supply;
    f. water contact recreation;
    g. wildlife habitat; and
    h. fish migration.

17. Present and anticipated beneficial uses of ground water in the vicinity of the discharge include municipal and domestic supply and agricultural supply.

Landfill Specifics.

18. In addition to this Order, the site is permitted to operate as a Class III facility by Solid Waste Facilities Permit No. 40-AA-001, which is administered by the San Luis Obispo County Health Department.

19. The site has approximately 1.5×10^6 cubic yards of waste in place and 6.5×10^6 cubic yards of space remaining. Estimated remaining landfill life is at least 18 years. The landfill is filled by the areal lift method. Current filling is taking place in Module I which has a composite liner and leachate collection facility. The entire 80 acre landfill site is permitted to receive municipal solid waste.

20. The Landfill meets the criteria of the California Code of Regulations as stated in Chapter 15 for classification as a Class III landfill suitable to receive non-hazardous solid wastes. This Order implements the prescriptive standards and performance goals of Chapter 15, as adopted by the State Water Resources Control Board on October 18, 1984, and as amended on July 1, 1991.

21. Wastes containing greater than one percent (>1%) friable asbestos are classified as hazardous under California Code of Regulations, Title 22. Since such wastes do not pose a threat to water quality, Section 25143.7 of the Health and Safety Code permits its disposal in permitted landfills, providing waste discharge requirements specifically allow the discharge and the wastes are handled and disposed in accordance with other applicable State and Federal statutes and regulations.

22. Removal of larger recyclable items such as tires and white goods is accomplished by site personnel working the active face. Separated items are stock piled and later removed from the site by independent contractors.

Statements of Regulation

23. As required by the revision of Chapter 15, Article 5, the Discharger submitted a July 1992, Report of Waste Discharge to facilitate updating Waste Discharge Requirements for the site. The Report of Waste Discharge included a Monitoring and Reporting Program proposal for improving ground water, surface water and vadose zone monitoring programs. The establishment of a financial assurance instrument to cover all expenses related to future corrective action costs was also included in the plan. Recently, Board staff requested, and Discharger submitted a work plan (dated June 27, 1994) to implement monitoring system improvements. Upgrade of the monitoring system is expected to be completed by May 1995.

24. On October 9, 1991, the United States Environmental Protection Agency (USEPA) promulgated regulations pertaining to solid waste disposal facilities known as 40 CFR, Parts 257 and 258 Solid Waste Disposal Facility Criteria, Final Rule (also known as Subtitle D). Subtitle D regulations establish minimum criteria for location, design, operation, clean-up, and closure, of municipal solid waste landfills. California has received USEPA authorization (became an

"Approved" State) to implement the Federal Subtitle D regulations. Subtitle D applicability is as follows:

a. municipal solid waste landfill units that stopped receiving waste before October 9, 1991 are exempt from Subtitle D except for monitoring requirements and deed restrictions;

b. municipal solid waste landfills that received waste on or after October 9, 1991, but stopped receiving waste before October 9, 1993 must meet only the final cover requirements specified in Section 258.60(a); and

c. Municipal solid waste landfills that received waste on or after October 9, 1993 must comply with all requirements of Subtitle D.

The majority of Subtitle D regulations became effective and self-implementing on October 9, 1993 (effective date). For municipal solid waste landfills that: (1) accept less than 100 tons per day; (2) are in a State that has submitted and application to USEPA for approval of its permit program by October 9, 1993; and (3) are not Superfund National Priorities list, the effective date was April 9, 1994. Ground water monitoring and corrective action requirements become effective prior to receipt of waste for new landfill units; October 9, 1994 through October 9, 1996 for existing landfill units and lateral expansions. Financial assurance requirements become effective April 9, 1995.

25. Discharge of waste is a privilege, not a right, and authorization to discharge waste is conditioned upon the discharge complying with provisions of Division 7 of the California Water Code and with any more stringent limitations necessary to implement the Basin Plan, to protect beneficial uses, and to prevent nuisance. Compliance with this Order should assure conditions are met and mitigate any potential changes in water quality due to the project.

26. This Order contain prohibitions, discharge specifications, water quality protection standards, and provisions intended to protect the environment by mitigating or avoiding impacts of the project on water quality. This Order is for an existing facility and as are exempt from provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) in accordance with Title 14, California Code of Regulations, Chapter 3, Section 15301.

Board Dates

27. On August 26, 1994, the Board notified the Dischargers and interested agencies and persons of its intention to update the waste discharge requirements for the discharge and has provided them with a copy of the proposed order and an opportunity to submit written views and comments.

28. After considering all comments pertaining to this discharge during public hearings on November 18, 1994 and February 10, 1995, this Order was found consistent with the above findings.

IT IS HEREBY ORDERED pursuant to authority in Section 13263 of the California Water Code, the City of El Paso De Robles, its agents, successors, and assigns may discharge wastes at the Paso Robles Class (III) Landfill, providing compliance is maintained with the following:

(Throughout these requirements, footnotes are listed to indicate the source of requirements specified. Requirement footnotes are as follows:

a=CCR, Title 23, Chapter 15
b=Basin Plan
c=CFR, Part 257 and 258 (Subtitle D)
d=California Water Code

Requirements without footnotes are based on professional judgement.)

A. DISCHARGE PROHIBITIONS

General Prohibitions

1. Discharge of waste to areas outside the "permitted Landfill area", as identified in **Attachment "B"**, is prohibited.

2. Discharge of wastes within the "permitted Landfill area", other than in areas shown as "areas of existing refuse" on **Attachment "B"**, is prohibited; unless a composite liner system, as described in **Specifications B.31 and B.32,** is provided.[c] The areas of existing refuse, on Attachment A, are inferred from, and more accurately delineated in, the May 20, 1994 report titled "Report Documenting the April 9, 1994 Footprint" which is hereby included by reference.

3. Discharge of "hazardous" waste, except for waste that is hazardous due only to its asbestos content, is prohibited. For the purposes of this Order, the term "hazardous" waste is as defined in Chapter 15.[a]

4. Discharge of "designated" waste is prohibited, except when the discharger demonstrates to the Executive Officer's satisfaction that waste constituents present a lower risk of water quality degradation than indicated by this classification. For the purpose of this Order, the term "designated" waste is as defined in Chapter 15.[a]

5. Discharge of "liquid wastes" or "semi-solid wastes" (i.e., wastes containing less than 50 percent solids by weight), other than leachate and gas condensate as allowed by **Discharge Specification B.8**, is prohibited. Exemptions to discharging wastes containing less than 50% solids by weight may be granted by the Executive Officer if the Discharger can demonstrate the discharge will not exceed the moisture-holding capacity of the Landfill waste management unit(s), either initially as a result of waste management operations, compaction, or settlement.[a,c]

6. Discharge of de-watered sewage or water treatment sludge, which contains less than 50% solids by weight to any Landfill areas, shall meet conditions specified in **Discharge Specification B.7.**[a]

7. Discharge of solid or liquid waste containing free liquid or moisture in excess of the waste's moisture holding capacity is prohibited. Waste must pass the paint filter test to determine if free liquids are present.[a,c]

8. Discharge of waste to ponded water from any source is prohibited.[a]

9. Ponding of liquids over solid wastes is prohibited.[a]

10. Discharge of wastes within five feet of the highest anticipated water table elevation, including the capillary fringe, is prohibited.[a]

11. Discharge of waste within 50 feet of the property line, 100 feet of surface waters, or 100 feet of domestic water supply wells is prohibited.

12. Discharge of solid or liquid waste or leachate to surface waters, drainageway(s), or ground water, is prohibited.

13. Discharge of wastes that would reduce or impair the integrity of containment structures is prohibited.[a]

14. Discharge of wastes which, if commingled with other wastes in the Landfill, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products which in turn:

    a. require a higher level of containment than provided by the Landfill;

    b. are restricted hazardous wastes; or

    c. impair the integrity of containment structures;

    is prohibited.[a]

15. Discharge of waste solvents, dry cleaning fluids, paint sludge, pesticides, phenols, brine, and acid and alkaline solutions is prohibited.[a]

16. Discharge of oils or other liquid petroleum products is prohibited.

17. Discharge of chemical and biological warfare agents is prohibited.

B. DISCHARGE SPECIFICATIONS

General Specifications

1. The Discharger shall implement attached Monitoring and Reporting Program No. 95-33, and any revisions thereto, in order to detect at the earliest opportunity any unauthorized discharge of waste constituents from the Landfill, or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the Landfill.[a]

2. Discharge of waste shall not cause the concentration of any Constituent of Concern or Monitoring Parameter to exceed its Concentration Limit in any monitored medium (i.e., soil-pore gas, soil-pore liquid, soil, or other geologic material), at any Monitoring Point assigned to Detection Monitoring pursuant to the current version of the Monitoring and Reporting Program.[a]

3. Discharge of waste shall not cause the release of pollutants/contaminants, or waste constituents in a manner which could cause a condition of pollution, contamination or nuisance to occur, as indicated by the most appropriate statistical [or non-statistical] data analysis method and retest method listed in the Monitoring and Reporting Program, Part II.[a,d]

4. Discharge of waste shall neither cause nor contribute to the pollution and/or contamination of State waters via the release of waste constituents in either liquid or gaseous phase.

5. Discharge of waste shall neither cause nor contribute to any surface water pollution or nuisance, including, but not limited to:

   a. floating, suspended, or deposited macroscopic particulate matter or foam;

   b. increases in bottom deposits or aquatic growth;

   c. an adverse change in temperature, turbidity, or apparent color beyond natural background levels;

   d. the creation or contribution of visible, floating, suspended, or deposited oil or other products of petroleum origin; or

   e. the introduction or increase in concentration of toxic or other pollutants/contaminants resulting in unreasonable impairment of State waters' beneficial uses.

6. Discharge of waste shall not be a source of nuisance(s). Nuisance includes but is not limited to; odors, litter, wind blown trash, noise.

7. Discharge of de-watered sewage sludge or water treatment sludge to Landfill Unit(s) shall meet all of the following criteria:

   a. de-watered domestic sludge which is utilized beneficially as soil amendment to promote vegetation over intermediate or final cover may be allowed with written Executive Officer approval;

   b. sludge may only be discharged to Landfill Units equipped with a dendritic/blanket-type leachate collection and removal system (LCRS) or acceptable equivalent immediately above the liner. However, if the sludge contains greater than 50% solid by weight, an LCRS may not be required depending on site specific conditions and upon Executive Officer approval;

c. a daily minimum solid waste-to-sludge ratio of 5 to 1 by weight shall be maintained to ensure co-disposal will not exceed the moisture-holding capacity of the nonhazardous solid waste. The actual ratio required by the Executive Officer shall be based on site-specific conditions;

d. primary and mixtures of primary and secondary sludge shall contain at least 20 percent solids by weight; and,

e. secondary sewage sludge or water treatment sludge shall contain at least 15 percent solids by weight.

8. Discharge of condensate or leachate to the Landfill shall meet the following conditions[c]:

   The condensate or leachate shall-

   a. be returned to a landfill unit(s) equipped with a containment system that meets the criteria of **Discharge Specifications B.31 and B.32** of this Order;

   b. be returned to the landfill unit(s) that produced it or meet the requirements of Chapter 15, §2543(g) for discharge to a different unit;

   c. consist only of liquid removed from the Landfill unit(s); and,

   d. be discharged in compliance with this Order.

9. With written Executive Officer approval, water (including non-hazardous and non-designated leachate and gas condensate) may be utilized over all Landfill areas, including unlined areas, during disposal operations. The use of such liquids shall be limited to the amount necessary for dust control, construction (soil compaction), and vegetation establishment/irrigation purposes. The Discharger shall minimize the infiltration of rain-water and prevent infiltration of leachate or gas condensate into areas containing refuse, except as allowed by **Discharge Specification B.8.**

10. The handling and disposal of asbestos containing wastes shall be in accordance with all applicable Federal, State, and Local statutes and regulations.

11. Ash wastes may be discharged in to Landfill units only when chemical analyses demonstrate, to the Executive Officer's satisfaction, that the waste is non-hazardous.[a]

12. Refuse shall be covered daily by at least six inches of cover material or, if allowed by the Local Enforcement Agency and approved by Executive Order, an alternative cover may be used that meets Performance Standards of the California Code of Regulations, Title 14, Section 17683. Cover shall promote lateral runoff of rainfall away from the active disposal area.[a] Upon Executive Officer approval, alternative daily cover materials may be utilized. Long-term alternatives to the daily cover requirements must satisfy the alternative daily cover procedures and be approved by the California Integrated Waste Management Board.

13. All material wind-blown outside the active disposal area shall be collected regularly and disposed in the Landfill. If wind-blown litter becomes a continuing problem, a containment barrier (screens and/or fences) shall be constructed to prevent spreading of refuse.

14. Waste shall not be discharged to a wetland, as defined in 40 CFR Section 232.2(r), or to any portion thereof, unless the Discharger successfully completes all demonstrations pursuant to 40 CFR Section 258.12(a). Such demonstration is subject to Executive Officer approval.[c]

15. The Discharger shall obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases from the Landfill until the end of the Landfill's Post-Closure Maintenance Period and during any compliance period.[a]

16. Wastes discharged in violation of this Order and after its adoption date, shall be removed and relocated.

17. The Discharger shall operate the Landfill and configure the final Landfill contours, in conformance with the most recently Executive Officer approved Master Plan and/or Operations Plan, except where the Plan(s) conflict with this Order. In the event of conflict, this Order shall govern in cases where it is most restrictive. Any changes to the Plan(s) that may affect compliance with this Order must be approved in writing by the Executive Officer.[a,d]

Wet Weather

18. By **October 1** of each year, all necessary runoff diversion and erosion prevention measures shall be implemented. All necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or Landfill flooding and to prevent surface drainage from contacting or percolating through wastes.[a]

19. All Landfill surfaces and working faces shall be graded and operated to minimize rainfall infiltration into wastes, to prevent ponding of water, and to resist erosion. Positive drainage to divert rainfall runoff from areas containing waste shall be provided.

20. Water collected in any storm water catchment basin or a site water treatment facility may be used in minimum amounts necessary for dust-control, compaction, or irrigation of cover vegetation provided none of the water infiltrates past the evapotranspiration zone..

21. Waste containment barriers shall be maintained to ensure their effectiveness.[a]

22. The Discharger shall monitor potential releases from the site related to surface water runoff by complying with all National Pollution Discharge Elimination System Stormwater Monitoring Program requirements.

23. Storage facilities associated with precipitation and drainage control systems shall be emptied immediately following each significant storm, or otherwise managed, to maintain the design capacity of the system.[a]

24. A minimum of two feet of freeboard shall be maintained in all leachate containment ponds.[a]

25. If adequate soil cover material is not accessible during inclement weather, such material shall be stockpiled during favorable weather to ensure year-round compliance.[a]

26. **Throughout the rainy season of each year,** a minimum one foot thick compacted soil cover designed and constructed to minimize percolation of precipitation through wastes, shall be maintained over the entire active Landfill area.[b] The soil cover shall be in-place by **October 1 of each year.** The only exception to this specification is the working face. The working face shall be confined to the smallest area practicable based on the anticipated quantity of waste discharged and required waste management facility operations. Based on site specific conditions, the Executive Officer may require a thicker soil cover for any portion of the Landfill's active waste management unit prior to the rainy season.

27. By **October 1, of each year,** vegetation shall be planted and maintained over unprotected landfill slopes to prevent erosion. Vegetation shall be selected to require a minimum of irrigation and maintenance. Upon Executive Officer approval, non-hazardous sludge may be utilized as a soil amendment to promote vegetation. Soil amendments and fertilizers (including wastewater sludge) used to establish vegetation shall not exceed the vegetation's agronomic rates (i.e., annual nutrient needs), unless approved by the Executive Officer.

Design Criteria

28. All Landfill units, containment structures and drainage facilities shall be designed and constructed under the direct supervision of a California registered civil engineer or a certified engineering geologist, and shall be certified by that individual as meeting the prescriptive

standards and performance goals of all State and Federal landfill regulations including, but not limited to Chapter 15 and 40 CFR Parts 257 and 258, prior to waste discharge. Drainage ditches crossing over landfill areas shall be lined with material which provides an effective field permeability of 1.0×10^{-6} cm/sec or less. If material other than clay or synthetic is used, data must be provided to, and approved by, the Executive Officer. The drainage facilities shall be designed and constructed to accommodate anticipated precipitation and peak surface runoff flows from a 100-year, 24-hour event.[a,c]

29. All Landfill facilities shall be designed and constructed to ensure the integrity of the final slopes under both static and dynamic conditions considering seismic acceleration and to minimize damage during the "maximum probable earthquake" to the graded foundation and to structures which control leachate, surface drainage, erosion, and gas. The slope of those portions of the fill which will be the final exterior surface shall be developed in accordance with applicable Federal requirements, including Chapter 15, Subsection 2581, and the following:

    a. all slopes shall have a minimum of one 15-foot wide bench for every 50 feet of vertical height;

    b. slopes shall not be steeper than a horizontal to vertical ratio of 1.75:1 (57%);

    c. slopes steeper than a horizontal to vertical ratio of 3:1 (33%) shall be supported by a slope stability analysis report approved by the Executive Officer; and,

    d. slopes with grades less than 3% require Executive Officer approval.

    The operator must demonstrate that all containment structures, including liners, leachate collection and removal systems, and surface water control systems are designed to resist the maximum horizontal acceleration in lithified earth material for the site. The owner or operator must place the demonstration in the operating record and notify the Executive Officer that it has been placed in the operating record.

30. All Landfill units, containment structures, and drainage facilities shall be designed, constructed and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, overtopping, and damage due to natural disasters (e.g., floods with a predicted frequency of once in 100 years, the maximum probable earthquake, and severe wind storms).[a]

31. Wastes shall not be discharged to areas outside the footprint area which had not received waste as of **April 9, 1994**, unless the discharge is to an area equipped with a containment system, which meets either a. or b. below:

    a. a composite liner and a leachate collection and removal system. The liner must consist of two components:

        i. **Lower Component**: a minimum two-foot layer of compacted soil with a hydraulic conductivity of no more than $1X10^{-7}$ cm/sec (0.1 feet/year); and

        ii. **Upper Component**: a minimum 40-mil flexible membrane liner (FML) or a minimum 60-mil high density polyethylene (HDPE). The upper component must be installed in direct and uniform contact with the lower component; or

    b. an engineered alternative design. Engineered alternative designs must satisfy the performance criteria in 40 CFR, Section 258.40(a)(1) and (c), and satisfy the criteria for an engineered alternative to the above Prescriptive Design, as provided by Title 23, CCR, Section 2510 (b), where the performance of the alternative composite liners' components, in combination, equal or exceed the waste containment capability of the Prescriptive Design.[c]

32. Leachate collection and removal systems shall be installed immediately above the liner and shall be designed, constructed, maintained, and operated to:[a,c]

a. collect and remove twice the maximum anticipated daily volume of leachate from the Landfill unit(s);

b. prevent the development of greater than one-foot of hydraulic head on the liner;

c. convey to a sump, or other appropriate collection area, all leachate which reaches the liner. The depth of fluid in any collection sump shall be kept at the minimum needed to ensure efficient pump operation; and

d. function without clogging through the scheduled closure of the waste management unit and during the post-closure maintenance period.

Closure

33. Areas at final elevations shall be covered with a final cover pursuant to Chapter 15 and Subtitle D final cover requirements, including from bottom to top:[a]

    a. at least a two foot foundation layer placed over waste;

    b.

        i. for landfills which have not been equipped with a Subtitle D composite liner system, a low permeability geomembrane or a one-foot minimum thickness compacted clay layer with an in-place permeability no faster than $1x10^{-6}$ cm/sec, or no faster than the permeability of underlying natural geologic materials, which ever is less, or

        ii. for landfills which have been equipped with a Subtitle D composite liner system, a low permeability geomembrane and an 18-inch minimum thickness compacted clay layer with an in-place permeability no faster than $1x10^{-6}$ cm/sec, or no faster than the permeability of the underlying natural geologic materials, whichever is less; and,

    c. at least one foot of soil capable of supporting vegetation, resisting erosion, and protecting the underlying low permeability layer.

    The final cover shall be graded to a slope of at least 3%, but not more than 10% unless adequate erosion control measures are implemented and approved by the Executive Officer.

34. Permeability determinations shall be as specified in Article 4 of Chapter 15. Permeabilities specified for containment structures other than cover shall be relative to the fluids, including waste and leachate, to be contained. Permeabilities specified for cover shall be relative to water. Permeabilities shall be determined primarily by appropriate field test methods in accordance with civil engineering practice (sealed double ring infiltrometer test is required). The results of laboratory tests with both water and leachate, and field tests with water, shall be compared to evaluate how the field permeabilities will be affected by leachate. Appropriate compaction tests may be used in conjunction with laboratory permeability tests to determine field permeabilities as long as a reasonable number of field permeability tests are also conducted. Construction methods and quality assurance procedures shall be submitted for Regional Board review, and shall insure all parts of the low-permeability layer meet the hydraulic conductivity and compaction requirements.[a]

35. All Landfill units which have not reached final fill elevation, but will remain inactive over one-year, must be provided with an Executive Officer approved long-term intermediate cover. The thickness and permeability of the long-term intermediate cover shall be based primarily on site specific conditions including, but not limited to length of exposure time; volume of underlying material, permeability, thickness and composition of existing cover; amount of yearly rainfall; depth to ground water; beneficial uses of underlying ground water; site specific geologic and hydrogeologic conditions; and effectiveness of existing monitoring system.

36. The Discharger shall implement final closure activities as the site operation progresses (e.g., within 30 days after a particular Landfill unit or portion of a unit reaches final fill elevation, final closure activities, consistent with the closure schedule, must be initiated), in accordance with the most recently approved closure plan.[a]

37. All closed Landfill unit(s) shall be provided with at least two permanent monuments, installed by a licensed land surveyor, from which the location and elevation of all wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period. Cumulative waste subsidence and settlement of areas where final cover is installed, shall be documented and reported annually.[a]

38. Partial closure shall be accomplished by implementing closure activities, including but not limited to: placement of final cover, final grading, maintenance, re-vegetation, and installation of environmental monitoring control systems consistent with the closure of the entire site. Landfill waste management units closed in accordance with a Closure Plan approved by the Executive Officer are not subject to future regulatory changes, unless monitoring data indicate impairment of State waters' beneficial uses.[a]

39. Alternative intermediate and final cover designs may be considered for Executive Officer approval, if such designs provide equivalent reduction in infiltration and protection from wind and water erosion.[a]

40. Landfill gases shall be adequately removed from the Landfill, or otherwise controlled, to prevent nuisance conditions or the impairment of State waters' beneficial uses due to migration through the vadose (unsaturated) zone.

Reporting

41. Discharger shall notify Board staff, within 24 hours by telephone and within seven days in writing, of any noncompliance potentially or actually endangering health or the environment. Any noncompliance which threatens the Landfill's containment integrity shall be promptly corrected. Correction schedules are subject to the approval of the Executive Officer, except when delays will threaten the environment and/or the Landfill's integrity (i.e., emergency corrective measures). Corrections initiated prior to Executive Officer approval shall be so stated in the written report. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times or anticipated duration; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. This provision includes, but is not limited to:

    a. violation of a discharge prohibition;

    b. violation of any treatment system's discharge limitation;

    c. slope failure; and

    d. leachate seep occurring on or in proximity to the Landfill.[a]

42. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule, shall be submitted within 14 days following each scheduled date unless otherwise specified within the Order. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of achieving full compliance.

43. Reports shall be submitted in advance of any planned changes in the permitted facility or in an activity which could potentially or actually result in noncompliance.

44. Additional reporting requirements are contained in the Monitoring and Reporting Program.

C. WATER QUALITY PROTECTION STANDARDS

1. Water Quality Protection Standard (Standard). The five parts of the Standard are as follows:

   a. Constituents of Concern. The list of Constituents of Concern for water-bearing media and soil pore liquid include those described in Part I.E., of Monitoring and Reporting Program No. 95-33;

   b. Concentration Limits. For each Monitoring Point assigned to the Detection Monitoring Program, the Concentration Limit for each Constituent of Concern [or Monitoring Parameter] shall be as described in Part II.B. of Monitoring and Reporting Program No. 95-33;

   c. Monitoring Points and Background Monitoring Points for Detection Monitoring shall be those listed in Monitoring and Reporting Program 95-33 Part I.E. and shown on **Attachment B** or any revisions thereto;

   d. Point of Compliance. The Point of Compliance is the edge of the waste management unit and extends vertically down through the uppermost aquifer; and,

   e. Compliance Period. The Compliance Period is the number of years equal to the active life of the Landfill unit (including any Landfill unit activity prior to the adoption of the waste discharge requirements) plus the closure period. The Compliance Period is the minimum period of time during which the Discharger shall conduct a water quality monitoring program subsequent to a release. The estimated duration of the Compliance Period for this Landfill is **63 years**. Each time the Standard is broken (i.e., a release is discovered), the Unit begins a Compliance Period on the date the Board directs the Discharger to begin an Evaluation Monitoring Program. If the Discharger's Corrective Action Program has not achieved compliance with the Standard by the scheduled end of the Compliance Period, the Compliance Period is automatically extended until the Landfill has been in continuous compliance for at least three consecutive years.

2. Monitoring Parameters for Detection Monitoring

   The Detection Monitoring Parameters are listed in Monitoring and Reporting Program Part I.E.

3. Additional Monitoring Points or Background Monitoring Points. By **October 15, 1995**, the Discharger shall, install any additional ground water, soil pore liquid, soil pore gas, or leachate monitoring devices required to fulfill the terms of any Discharge Monitoring Program issued by the Executive Officer.

4. Additional Requirements

   a. The concentrations of indicator parameters or waste constituents in water passing through the "Detection" Points of Compliance shall not exceed the "water quality protection standard(s)" established pursuant to Monitoring and Reporting Program No. 95-33, which is attached and made part of this Order.

   b. Discharge of waste shall not cause a "statistically significant" increase over background for any of the constituents of concern or monitoring parameters listed in Appendix I and II of Subtitle D.

   c. Discharge of waste shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board.

   d. Discharge of waste shall not cause concentrations of chemicals and radionuclides in underlying and downgradient ground water to exceed limits set forth in Title 22, Chapter 15, Articles 4 and 5 of the Code.

   e. Discharge of waste shall not adversely impact the quality of water in any aquifer.

f. Discharge of waste shall not cause ground water in downgradient wells to exceed the State Department of Health Services latest recommended Drinking Water Action Levels or Maximum Contaminant Levels.

D. PROVISIONS

General Provisions

1. Order No. 88-33 "Waste Discharge Requirements for Paso Robles Class III Solid Waste Disposal Site," adopted by the Board on May 6, 1988, is hereby rescinded.

2. The Discharger shall comply with "Monitoring and Reporting Program No. 95-33", as specified by the Executive Officer.

3. The Discharger shall maintain a copy of this Order at the facility and make it available at all times to regulatory agency personnel and to facility operating personnel, who shall be familiar with its contents.

4. The Discharger shall comply with all other applicable provisions of Chapter 15, Subtitle D and other State and Federal landfill regulations that are not specifically referred to in this Order. If any applicable regulation requirements overlap or conflict in any manner, the most restrictive requirement shall govern in all cases, unless specifically stated otherwise in this Order, or as directed by the Executive Officer.

5. The Discharger shall maintain legible records of the volume and type of each waste discharged at each waste management unit and the manner and location of discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Board and of the State Water Resources Control Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.[a]

6. The Discharger shall report all changes in usage of daily cover and performance standards within 10 days following the change.

7. The Discharger shall be responsible for accurate waste characterization, including determinations of whether or not wastes will be compatible with containment features or other wastes and whether or not wastes are required to be managed as hazardous wastes.[a]

8. The Discharger shall have a continuing responsibility to assure protection of usable waters, from discharged wastes and from gases and leachate generated by discharged waste, during the Landfills active life, closure, and post-closure maintenance periods and during subsequent use of the property for other purposes.

9. The Board considers the property owner and Discharger to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge.

10. At any time, the Discharger may file a written request (including appropriate supporting documents) with the Regional Board Executive Officer, proposing appropriate modifications to the Monitoring and Reporting Program. The request may address changes (a) to any statistical method, non-statistical method, or retest method used with a given constituent or parameter, (b) to the manner of determining the background value for a constituent or parameter, (c) to the method for displaying annual data plots, (d) to the laboratory analytical method used to test for a given constituent or parameter. (e) to the media being monitored [e.g., the addition of soil pore gas to the media being monitored], (f) to the number or placement of Monitoring Points or Background Monitoring Points for a given monitored medium, or (g) to any aspect of monitoring or QA/QC. After receiving and analyzing such a report, the Executive officer either shall reject the proposal for reasons listed, or shall incorporate it, along with any necessary changes, into the attached Monitoring and Reporting Program. The Discharger shall implement any changes in the Monitoring and Reporting Program proposed by the Regional Board Executive Officer upon receipt of a revised Monitoring and Reporting Program.

11. If the Discharger or the Regional Board determines, pursuant to Section 2550.8(g) or (i), that there is evidence of a release or a new release from any portion of the Landfill, the Discharger shall immediately implement the procedures outlined in Monitoring and Reporting Program Part IV.C.[a]

12. The Discharger or persons employed by the Discharger shall comply with all notice and reporting requirements of the State Department of Water Resources with regard to the construction, alteration, destruction, or abandonment of all monitoring wells used for compliance with this Order or with Monitoring and Reporting Program No. 95-33, as required by Sections 13750 through 13755 of the California Water Code.[d]

13. All reports shall be signed as follows:

    a. for a corporation-by a principal executive officer of at least the level of vice president*;

    b. for a partnership or sole proprietorship-by a general partner or the proprietor*, respectively;

    c. for a public agency-by either a principal executive officer or ranking elected official*; or,

    d. engineering reports-by a California Registered Civil Engineer or Certified Engineering Geologist.

    *or their "duly authorized representative."

14. Any person signing a report makes the following certification, whether its expressed or implied:

    "I certify under penalty of perjury I have personally examined and am familiar with the information submitted in this document and all attachments and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

15. Except for data determined to be confidential under Section 13267 (b) of the California Water Code, all reports prepared in accordance with this Order shall be available for public inspection at the Regional Board office.[d]

16. The Discharger shall notify the Board in writing of any proposed change in ownership or responsibility for construction or operation of the facility. This notification shall be given at least 90 days prior to the effective date of the change and shall be accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with this Order. In the event of any change in ownership of this waste management facility, the Discharger shall notify the succeeding owner or operator, in writing, of the existence of this Order. A copy of that notification shall be sent to the Board. Notification to the Board shall also comply with Section 2590(c) of Chapter 15.[a]

17. To assume operation pursuant to this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Board, and a statement indicating that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a violation of Section 13264 of the Water Code (discharge without waste discharge requirements). Transfer may be approved or disapproved in writing by the Executive Officer.[d]

18. The Discharger shall develop a long-term intermediate cover design for all Landfill areas which have not reached final fill elevation, but will remain inactive for over one year. Cover designs shall minimize percolation from precipitation and surface water flows. The proposed design shall be submitted by **May 15, 1995** for Executive Officer approval. Executive Officer approval of the design will be based on site specific factors as described in **Discharge Specification B.35.**

19. The Discharger shall submit a 'Wet Weather Preparedness Report' by **November 30, of each year.** The report must address, in detail, compliance with all wet weather preparedness related specifications (e.g., **Discharge Specifications B.18, B.19, B.20, B.21, B.22, B.23, B.24, B.25, B.26, and B.27**) of this Order, and all other relevant Chapter 15 and Subtitle D criteria.

20. The Discharger shall maintain a program for periodic intake load-checking. The program shall include, but not be limited to:[a]

    a. number of random loads to be checked per month and/or year;

    b. training program for on-site personnel;

    c. record keeping and reporting program;

    d. program implementation schedule;

    e. alternatives for waste found to not be in compliance with this Order; and,

    f. example of signs posted at the facility.

21. Hazardous waste warning signs that adequately inform and warn users of hazardous waste restrictions shall be posted on a legible roadway sign at the entrance in both English and Spanish. The signs shall also list penalties for illegal dumping. A specific list of Hazardous Wastes and other types of materials prohibited at this landfill shall be provided to commercial waste haulers that use this Landfill and shall be available to all other site users upon request.

22. The Discharger shall submit to the Regional Board, for Executive Officer approval, an updated closure and post-closure maintenance plan (Closure Plan) by **December 15, 1998**. The Closure Plan shall describe the methods and controls to be used to assure protection of the quality of surface and ground waters of the area during partial and final closure operations and during any proposed subsequent use of the land. The Closure Plan shall include:

    a. a description of the final cover, designed in accordance with all applicable State and Federal regulations and the methods and procedures to be used to install the cover;

    b. an estimate of the largest Landfill area ever requiring a final cover at any time during the active life;

    c. an estimate of the maximum inventory of wastes ever on-site over the Landfill facility's' active life;

    d. a schedule for completing all activities necessary to satisfy all closure criteria as required by Chapter 15 and Subtitle D regulations;

    e. an estimate of closure and post closure maintenance costs;

    f. a proposal for a trust fund or equivalent financial arrangement to provide sufficient funding for closure and post-closure maintenance; and,

    g. the amount to be deposited in the trust fund or equivalent financial arrangement each year.

    The Closure Plan shall be prepared by or under the supervision of a California registered civil engineer or certified engineering geologist. Plan updates are required whenever substantial changes occur or five years has elapsed since the last major revision. The method, identified for each Landfill units' closure and protection of the quality of surface and ground waters, shall comply with an Order established by the Board. The Closure Plan report shall be consistent with all applicable State and Federal regulations, including Chapter 15 and Subtitle D.[a,c]

23. The Discharger shall notify the Board at least 180 days prior to beginning any partial or final Landfill closure activities. The notice shall include a statement that all closure activities will conform to the most recently approved Closure Plan and that the Plan provides for closure in compliance with all applicable State and Federal regulations. If there is no approved Closure Plan, the Discharger must submit a complete Closure Plan at least 240 days prior to beginning any Landfill closure activities.[a,b]

24. The Executive Officer may require partial and/or final closure of any Landfill unit regardless of whether such waste management unit has reached final capacity laterally and/or vertically for the protection of water quality. Such a requirement will be requested in writing.[a]

25. Within 60 days after completing final closure of all Landfill units:

    a. the owner or operator must record a notation on the deed to the Landfill facility property, or some other instrument that is normally examined during title search, and notify the Executive Officer that the notation has been recorded and a copy has been placed in the operating record; and

    b. the notation on the deed must, in perpetuity, notify any potential purchaser of the property that:

        i. the land has been used as a landfill facility;

        ii. its use is restricted pursuant to Subtitle D, Section 258.61(c)(3); and

        iii. should the Discharger default in post-closure care, liability shifts to the new owner/operator.[a,c]

26. The Discharger shall maintain waste containment facilities and precipitation and drainage controls, and shall continue to monitor, as appropriate, ground water, leachate from the Landfill Unit, the vadose zone, and surface waters per the current version of the Monitoring and Reporting Program throughout the post-closure maintenance period.[a]

27. The post-closure maintenance period shall continue until the Regional Board determines that remaining wastes in the Landfill will not threaten water quality.[a]

28. Discharger shall notify the Regional Board within 24 hours by telephone and within seven days in writing of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures.

29. Vertical expansions placed above currently permitted fill elevations will <u>not</u> be permitted, unless the Discharger submits and the Executive Officer approves, a proposal demonstrating that additional refuse placed on top of existing unlined Units does not significantly increase the threat to water quality. The proposal shall adequately address:

    a. all siting criteria and engineering properties of underlying refuse, and

    b. differential settlement, including the ability of the underlying waste to support the additional refuse and all effects of the additional refuse upon the underlying refuse.

    All proposal conclusions shall consider site specific conditions, including subsurface hydrogeologic factors, existing threat to water quality, any existing State Water's degradation as a result of waste discharges, beneficial uses of underlying and adjacent waters, size of the existing waste management unit, remaining capacity, existing and proposed final fill elevations, financial feasibility, and any other relevant factors.

30. The Discharger shall submit a complete liner system design report for Executive Officer consideration of any new Landfill Unit use and construction, at least 180 days prior to waste management unit development. The design report shall adequately address any proposed deviation from the most currently approved fill sequencing plan. It must adequately address all applicable requirements of State (Chapter 15) and Federal (Subtitle D) landfill regulations.[a]

31. Pursuant to the California Code of Regulations, Title 23, Chapter 15, Article 9, the Discharger must submit a technical report to the Executive Officer not later than **May 15, 1999** which:

    a. discusses whether there has been or will be changes in the continuity, character, location, or volume of the discharge;

    b. discusses any proposed expansions (lateral and/or vertical expansions within and/or outside currently permitted Landfill boundaries) or closure plans, including detailed information of the quality and quantity of waste discharged and the anticipated impact upon water quality and Landfill operations;

    c. discusses whether, in their opinion, there is any portion of the Order that is incorrect, obsolete, or otherwise in need of revision;

    d. addresses all other applicable sections of Article 9, Chapter 15 (e.g., update of the Landfill's Development and Operations Plan, etc.,); and

    e. includes any other technical documents needed to demonstrate continued compliance with this Order and all pertinent State and Federal requirements.[a]

32. The Discharger shall submit an updated/revised version of its Master Plan by **May 15, 1999**. The Master Plan must include detailed information regarding regulatory considerations; design, construction and operating provisions; environmental monitoring; and closure and postclosure. Additionally, the Master Plan shall:[a]

    a. include a Fill Sequencing Plan, including detailed maps. The Fill Sequencing Plan should describe in detail the overall development of the entire Landfill .

    b. include a detailed description of the lateral and vertical extent of refuse within all existing Modules. It must include an accurate estimate of waste volumes within each existing Landfill module and an approximation of the remaining volume and years of capacity for each existing module and all new proposed modules within currently permitted Landfill boundaries. It must also describe all existing available space within currently permitted Landfill areas (i.e., modules where refuse has been placed in the past, but have not reached final permitted elevation and modules or portions of modules where refuse has never been placed).

    c. discuss any plans/proposals to close or partially close any modules or portions of modules, any proposed liner systems and respective design components, any proposed plans for long-term intermediate cover for Landfill areas which may remain inactive for long periods of time.

33. The City of El Paso de Robles shall appropriate $1,000,000.00 (one million dollars) to a restricted reserve Financial Assurance Instrument (Instrument) to cover the estimated Article 5 costs to initiate and complete corrective action of the "worse case" reasonably foreseeable release. The total appropriated amount is described in the foreseeable release section of the 7/92 Report of Waste Discharge. The total costs include: $500,000.00 to cover capital costs and $500,000 to cover annual operation and maintenance costs. A ten year clean up period is assumed. The Discharger shall submit a report every five years that either validates the Instrument's ongoing viability or proposes and substantiates any needed changes. The report is due **May 15, 1999** and every five years thereafter.[a,c]

34. By **May 15, 1995** the Discharger shall submit a signed, stand alone, Financial Assurance Instrument for corrective actions as outlined in **Provision D.33**, above, for Executive Officer review.

35. By **April 15, 1995** the Discharger shall submit a Phase I report for monitoring system upgrades. The report shall include final recommendations for placement of lysimeters and gas probes based on data review and geophysical investigations as outlined in the June 27, 1993 Work Plan, Paso Robles City Landfill Water Quality Monitoring Program.

36. The Discharger shall complete monitoring system upgrades, outlined in the June 27, 1993 Work Plan, Paso Robles City Landfill Water Quality Monitoring Program, by **October 15, 1995**.

37. Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267 of the California Water Code, or falsifying any information provided therein, is guilty of a misdemeanor.[d]

38. Prior to **August 15, 1995**, the Discharger shall submit a Technical Compliance Report addressing compliance with all terms of this Order.

The following submittal and implementation schedule for all tasks and/or reports is provided as a convenience to the Discharger. If conflicts between the body of the Order and this summary exist the Order shall be followed.

REPORT AND IMPLEMENTATION DATE SUMMARY

TASK	IMPLEMENTATION DATE
Runoff diversion and erosion prevention [Specification No. 18]	October 1, of each year
Minimum One foot cover over Landfill [Specification No. 26]	October 1, of each year
Vegetation placement over entire Landfill area [Specification No. 27]	October 1, of each year
Complete monitoring system upgrades [Provision No. 36]	October 15, 1995
REPORT	**DUE DATE**
Long-Term Intermediate Cover Design Report [Provision No. 18]	May 15, 1995
Wet Weather Preparedness Report [Provision No. 19]	November 30, of each year
Updated Closure Plan [Provision No. 22]	December 15, 1998
Technical Report [Provision No. 31]	May 15, 1999
Updated Master Plan [Provision No. 32]	May 15, 1999
Financial Assurance Report [Provision No. 33]	May 15, 1999
Financial Assurance Instrument [Provision No. 34]	May 15, 1995
Monitoring System Upgrade Phase I Report [Provision No.35]	April 15, 1995
Technical Compliance Report [Provision No. 38]	August 15, 1995

I, ROGER W. BRIGGS, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on February 10, 1995.

Paul Yoggy
for Executive Officer

2/21/95
Date

MSL2/95-33.WDR

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
81 Higuera Street, Suite 200
San Luis Obispo, California 93401-5427

MONITORING AND REPORTING PROGRAM NO. 95-33

FOR

CITY OF EL PASO DE ROBLES,
PASO ROBLES CLASS III SOLID WASTE DISPOSAL SITE
SAN LUIS OBISPO COUNTY

PART I: MONITORING AND OBSERVATION SCHEDULE

Unless otherwise indicated, all required monitoring and observations shall be reported in the Detection Monitoring Report and/or the Annual Summary Report, as outlined in Part IV of this Monitoring and Reporting Program.

A. SITE INSPECTIONS

The Discharger shall inspect the Landfill site in accordance with the following schedule, and record, at a minimum, the Standard Observations as defined in Part V.

Site Inspection Schedule:

1. During the wet season (October through April), following each storm which produces storm water discharge, with inspections performed at least monthly

2. During the dry season a minimum of one inspection each Monitoring Period.

B. INTAKE MONITORING

The Discharger shall maintain a daily record of the waste stream. The record shall include the following:

1. Weight and volume of waste received;

2. Running totals of volume received, volume remaining for waste placement, and site life expectancy;

3. Current fill area;

4. Waste type and diversion quantities; and

5. Log of random load checking program. The log shall contain a record of refused loads, including the type of waste refused, and the date, name, address , and phone number of the party attempting to dispose of the waste.

C. LEACHATE AND DRAINAGE SYSTEMS INSPECTIONS

The Discharger shall inspect all leachate systems and record the following information:

1. Weekly; leachate containment system integrity, record volume of leachate collected and disposal method used;

2. Quarterly; pumping system operational check and leachate sampling;

3. Annually; leachate collection and removal system testing as required by Chapter 15, Article 4, §2543(d), reporting the results as part of the Annual Summary Report required by Part IV.B. of this Monitoring and Reporting Program. During the annual inspection, particular attention shall be given to identifying evidence of biofouling. The absence or presence of biofouling shall be addressed in the inspection report.

Additionally the Discharger shall inspect all drainage control systems following each Significant Storm and record the following information:

1. whether storm storage basins and drainage ditches contain liquids;

2. any apparent seepage from storage basins;

3. general conditions of facilities and liners; and

4. steps taken to correct any problems found during inspection and date(s) when taken.

D. RAINFALL DATA

The Discharger shall record the following information, reporting it with the quarterly monitoring report;

1. total precipitation during the Monitoring Period

2. precipitation during the most intense twenty-four hour interval of the Monitoring Period

3. return rating of most intense 24 -hour storm [25 year, 100 year, and so on]

E. WATER MONITORING

The Discharger shall monitor ground and surface water in accordance with the following schedule. Sampling, analyses, and reporting shall follow Parts II, III, and IV of this Monitoring and Reporting Program. The Discharger shall ensure enough samples are taken, at each monitoring point, to qualify for the most appropriate statistical analysis method outlined under Part III of this Monitoring and Reporting Program.

1. Monitoring Points and Background Monitoring Points

The Discharger shall sample the following Monitoring Points and Background Monitoring Points, as shown on Attachment B to Order No. 95-33:

a. for ground water the Monitoring Points shall be wells MW-1, MW-2, MW-3, and the site's supply well. Where background or upgradient references are required MW-2 shall be used; and

b. for surface waters the Monitoring Point(s) shall be each sediment basin on site. Site discharges shall be sampled and analyzed in accordance with National Pollutant Discharge Elimination System requirements;

Additionally the Discharger shall sample, analyze, and report on all sampling locations established after the adoption date of this monitoring program in accordance with this program or an Executive Officer approved procedure.

2. Monitoring Frequency

Beginning on the date that this Monitoring and Reporting Program is adopted, monitoring of each monitored medium, all Monitoring Points and all Background Monitoring Points, shall be carried out once each Monitoring Period. The Monitoring Period for Monitoring Parameters is quarterly. The Monitoring Period for Constituents of Concern is five years. The first Constituent of Concern Monitoring Period ends May 18, 1995. Monitoring Periods are defined in Part V of this Monitoring and Reporting Program.

3. Monitoring Parameters

a. The Discharger shall analyze all ground water samples for the following Monitoring parameters:

total dissolved solids (TDS), chloride, nitrate nitrogen, pH, electrical conductivity (EC), chemical oxygen demand (COD), sulfate, manganese, sodium, $VOC_{composite}$.

b. The Discharger shall analyze all surface water samples for the following Monitoring parameters:

total suspended solids (TSS), electrical conductivity (EC), chemical oxygen demand (COD), pH, chloride, sulfate, nitrate nitrogen, manganese.

Statistical and non-statistical assessment methods, as required by Part III, shall be used to evaluate the sampling results.

4. Ground Water Flow Rate and Direction

For each monitored ground water body, the Discharger shall measure the water level in each well, at least quarterly, including the times of expected highest and lowest elevations of the water level, and determine the presence of vertical gradients, and ground water flow rate and direction for the respective ground water body. Ground water elevations for all wells in a given ground water body shall be measured within a period of time short enough to avoid temporal variations in ground water flow which could preclude accurate determination of ground water flow rate and direction (40 CFR §258.53(d)). The Discharger shall compare observed ground water characteristics with those from previous determinations, noting the appearance of any trends and of any indications that a change in the hydrogeologic conditions beneath the site has occurred. This information shall be reported in the Detection Monitoring Report required under Part IV.A. of this Monitoring and Reporting Program.

5. Constituents of Concern

The Constituents of Concern for Water Bearing Media include:

carbonate and all constituents listed in Appendix II to 40 CFR, part 258. Monitoring for Constituents of Concern (COC) shall encompass only those Constituents of Concern that do not also serve as Monitoring Parameters.

6. Thirty-Day Sample Procurement Limitation

For any given monitored medium, the samples taken from all Monitoring Points and Background Monitoring Points to satisfy the data analysis requirements for a given Monitoring Period shall all be taken within a span not exceeding 30 days, and shall be taken in a manner that ensures sample independence to the greatest extent feasible [§2550.7(e)(12)(B) of Article 5].

PART II: SAMPLE COLLECTION AND ANALYSIS

A. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA Methods (USEPA publication "SW-846"), and in accordance with an approved sampling and analysis plan. Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. Specific methods of analysis must be identified. If methods other than USEPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Executive Officer prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements. In addition, the Discharger is responsible for seeing that the laboratory analysis of all samples from Monitoring Points and Background Monitoring Points meets the following restrictions:

1. The methods of analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e., Trace) in historical data for that medium, the analytical method having the lowest Facility-Specific Method Detection Limit (Method Detection Limit) shall be selected from among those methods which would provide valid results in light of any Matrix Effects involved.

2. Trace results (results falling between the Method Detection Limit and the Facility-Specific Practical Quantitation Limit (Practical Quantitation Limit)) shall be reported as such, and shall be accompanied by both the estimated Method Detection Limit and Practical Quantitation Limit values for that analytical run.

3. Method Detection Limits and Practical Quantitation Limits shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Both limits are defined in Part V. of this Monitoring and Reporting Program. Both limits shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the lab, rather than simply being quoted from USEPA analytical method manuals. If the lab suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived Method Detection Limit/Practical Quantitation Limit values, the results shall be flagged accordingly, and an estimate of the detection limit and/or quantitation limit actually achieved shall be included.

4. All QA/QC data shall be reported along with the sample results to which it applies. Sample results shall be reported unadjusted for blank results or spike recovery. The QA/QC data submittal shall include:

   - the method, equipment, and analytical detection limits;

   - the recovery rates, an explanation for any recovery rate that is outside the USEPA-specified recovery rate;

- the results of equipment and method blanks;
- the results of spiked and surrogate samples;
- the frequency of quality control analysis; and
- the name and qualifications of the person(s) performing the analyses.

5. Upon receiving written approval from the Executive Officer, an alternative statistical or non-statistical procedure can be used for determining the significance of analytical results for a constituent that is a common laboratory contaminant (i.e., methylene chloride, acetone, diethylhexyl phthalate, and di-n-octyl phthalate) during any given Monitoring Period in which QA/QC samples show evidence of laboratory contamination for that constituent. Nevertheless, analytical results involving detection of these analytes in any background or downgradient sample shall be reported and flagged for easy reference by Regional Board Staff.

6. Non-targeted chromatographic peaks shall be identified, quantified and reported to a reasonable extent. When significant unknown peaks are encountered, second column or second method confirmation procedures shall be performed to attempt to identify and more accurately quantify the unknown analyte.

7. In cases where contaminants are detected in QA/QC samples (i.e., field, trip, or lab blanks), the accompanying sample results shall be appropriately flagged.

B. CONCENTRATION LIMITS

The Concentration Limit for any given Constituent of Concern or Monitoring Parameter in a given monitored medium shall be either:

1. the constituent's background value, established using historical records and approved by the Executive Officer; or

2. the constituent's interval limits, established by the Discharger and approved by the Executive Officer; or

3. the constituent's Method Detection Limit, in cases where the constituent's Method Detection Limit is exceeded in less than 10% of the historical samples; or

4. a Board established corrective action limit in accordance with Chapter 15, Article 5 §2550.4(c).

C. BACKGROUND/INTERVAL DETERMINATION

For the purpose of establishing Concentration Limit for each Constituent of Concern and each Monitoring Parameter (which is historically detected in greater than ten percent of the medians downgradient samples) at each Monitoring Point in each monitored medium the Discharger shall:

1. Analyze all existing historical monitoring data at the site and propose, to the Executive Officer, Concentration Limits for each Constituent of Concern and each Monitoring Parameter at each Monitoring Point for which sufficient data exists;

2. In all cases where sufficient data for determining Concentration Limits does not exist the Discharger shall collect and analyze samples for all Constituent(s) of Concern and Monitoring Parameter(s), including any added by the adoption of this Order, which required additional data for the establishment of a Concentration Limit. Once sufficient data is obtained the Discharger shall submit the proposed Concentration Limit(s) to the Executive Officer for approval. The acquisition of data to establish background shall take no longer than one calendar year;

3. Sample and analyze new Monitoring Points, including any added by this Order, until sufficient data is available to establish a proposed Concentration Limit for all Constituents of Concern and Monitoring Parameters. Once sufficient data is obtained the Discharger shall submit the proposed Concentration Limit to the Executive Officer for approval. The acquisition of data to establish background shall take no longer than one calendar year.

D. RECORDS TO BE MAINTAINED

Written records shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and of the Monitoring Point or Background Monitoring Point from which it was taken, along with the identity of the individual who obtained the sample;

2. Date and time of sampling;

3. Date and time that analyses were started and completed, and the name of the personnel performing each analysis;

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;

5. Calculation of results; and

6. Results of analyses, and the Method Detection Limit and Practical Quantitation Limit for each analysis.

PART III: STATISTICAL AND NON-STATISTICAL ANALYSIS OF DATA

A. METHOD DETERMINATION

For any given data set, the Discharger shall first decide if statistical analysis is possible, by reference to the relative frequency with which the constituent is detected in historical background samples. For a constituent that qualifies for statistical analysis, the most appropriate of the following methods shall be used to determine if there has been a release from the Waste Management Unit. At any time the Discharger may propose, to the Executive Officer for approval and use, alternative statistical data analysis methods that comply with the July 1, 1991 revision of Article 5 of Chapter 15.

Those constituents for which no statistical method is appropriate shall be analyzed by the non-statistical method. If the initial analysis tentatively indicates the detection of a release, the Discharger shall implement the appropriate retest procedure in Part III.D. of this Monitoring and Reporting Program.

B. STATISTICAL METHODS

The Discharger shall use one of the following statistical methods to analyze Constituents of Concern or Monitoring Parameters which exhibit concentrations which equal or exceed their respective Method Detection Limit in at least ten percent of the historical background samples. Except for pH, which uses a two-tailed approach, the statistical analysis for all constituents and parameters shall be one-tailed (testing only for statistically significant increase relative to background). Each of these statistical methods is more fully described in the USEPA Interim Final Guidance Document entitled Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, dated April 1989, which is hereby incorporated by reference:

1. Prediction Intervals

Prediction Intervals are amicable to parametric or non-parametric data. Intervals will be established using at least eight (8) historical sampling results. The intervals shall be re-established at least annually. The number of future events to be predicted shall not exceed five (5). The interval shall be constructed with an experiment-wise error rate of no less than 5 percent and an individual monitoring point error rate of no less than 1 percent. When constructing the intervals, non-detects shall be handled as follows:

- fifteen percent (15%) or less non-detects; replace non-detect with half the practical quantitation value.
- greater than fifteen percent (15%) but less than fifty percent (50%) non-detects; use Cohen's or Aitchison's adjustment methods.
- fifty percent (50%) or more non-detects; use non-parametric interval approach.

If any interval limits are exceeded, the Discharger shall conclude that a release is tentatively indicated for that constituent and shall immediately implement the retest procedure under Part III.D. of this Monitoring and Reporting Program.

2. One-Way Parametric Analysis of Variance (ANOVA), followed by multiple comparisons [§2550.7 (e)(8)(A) of Article 5]

This method requires at least four independent samples from each Monitoring Point and Background Monitoring Point during each sampling episode. The method shall be used for constituents which are historically detected in background at least 85% of the time. Prior to analysis, replace all Trace determinations with a value halfway between the Practical Quantitation Limit and the Method Detection Limit values reported for that sample run, and replace all non-detect determinations with a value equal to half the Method Detection Limit value reported for that sample run. The ANOVA shall be carried out at the 95% confidence level. Following the ANOVA, the

data from each downgradient Monitoring Point shall be tested at a 99% confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis to be rejected at any Monitoring Point, the Discharger shall conclude that a release is tentatively indicated for that constituent and shall immediately implement the retest procedure under Part III.D. of this Monitoring and Reporting Program;

3. Analysis of Variance (ANOVA) of Natural Logs of Initialized Well Data

   ANOVA of the Natural Logs of the data is the procedure of choice if the preliminary analyses indicate that the conditions for ANOVA are satisfied except for any one of the following:

   a. The coefficient of variation is greater than 1.0.

   b. The Chi-Square statistic of standardized residuals exceeds a critical value calculated at the 5% confidence level with the degrees of freedom defined as the number of monitoring points minus three.

   c. The Bartlett's statistic for equal variances exceeds a critical value calculated at the 5% confidence level with the degrees of freedom defined with the number of monitoring points minus one.

   If the use of the Natural Logs normalize the data (coefficient of variation < 1, Chi-Square < Chi-Square calculated critical value, and Bartlett's statistic < Bartletts' critical value) then ANOVA is the statistical procedure of choice and is completed, in accordance with Part III.B.1. above, using the modified database;

4. One-Way Non-Parametric ANOVA (Kruskal-Wallis Test), followed by multiple comparisons

   This method requires at least nine independent samples from each Monitoring Point and Background Monitoring Point; therefore, the Discharger shall anticipate the need for more samples per Monitoring Point, based upon past monitoring results. The method shall be used for constituents which are historically detected in background at least 50% of the time but less than 85% of the time. The ANOVA shall be carried out at the 95% confidence level. Following the ANOVA, the data from each downgradient Monitoring Point shall be tested at a 99% confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis to be rejected at any Monitoring Point, the Discharger shall conclude that a release is tentatively indicated for that constituent and shall immediately implement the appropriate retest procedure under Part III.D.; or

5. Method of Proportions

   This method shall be used for constituents which are historically detected in background at least 10% of the time but less than 50% of the time. This method requires:

   a. At least nine downgradient data points per Monitoring Point per Monitoring Period;

   b. At least thirty data points in the combined data set; and

   c. That $n * P > 5$ (where n is the number of data points in the combined data set and P is the proportion of the combined set that exceeds the Method Detection Limit);

   Therefore, the Discharger shall anticipate the number of samples required, based upon past monitoring results. The test shall be carried out at the 99% confidence level. If the analysis results in rejection of the Null Hypothesis , the Discharger shall conclude that a release is tentatively indicated for that constituent or parameter, and shall immediately implement the appropriate retest procedure under Part III.D.

C. NON-STATISTICAL METHOD

The Discharger shall use the following non-statistical method for analyzing all constituents which are detected in less than 10% of applicable background samples. Background shall be established in accordance with Part II.C. of this Monitoring and Reporting Program. This method involves a two-step process:

1. From all constituents to which the method applies, compile a list of those constituents which exceed their respective Method Detection Limit (Method Detection Limit) in the downgradient sample of a given Monitoring Point then;

2. Evaluate whether the listed constituents meet either of two possible triggering conditions. Either, the list contains two or more constituents, or contains one constituent which equals or exceeds its Practical Quantitation Limit. If either condition is met the Discharger shall conclude that a release is tentatively indicated and shall immediately implement the appropriate retest procedure under Part III.D.

For each Monitoring Point, the aforementioned list shall be compiled based on either the data from the single sample (for that constituent) taken during that Monitoring Period from that Monitoring Point, or in cases of multiple independent samples, from the sample which contains the largest number of constituents.

D. DISCRETE RETEST

In the event that the Discharger concludes that a release has been tentatively indicated, the Discharger shall carry out the reporting requirements of IV.C.2. and, within 30 days of this indication, collect two new suites of samples for the indicated Constituent(s) of Concern or Monitoring Parameter(s) at each indicating Monitoring Point, collecting at least as many samples per Monitoring Point as were used for the initial test. Re-sampling of the Background Monitoring Points is optional. As soon as the retest data is available, the Discharger shall use the same statistical method (or non-statistical comparison) as that which provided the tentative indication of a release to separately analyze each of the two suites of retest data for the affected Monitoring Point. For any indicated Monitoring Parameter or Constituent of Concern at an affected Monitoring Point, if the test results of either (or both) of the retest data suites confirms the original indication, the Discharger shall conclude that a release has been discovered and shall carry out the requirements of Part IV.C.4. of this Monitoring and Reporting Program. All retests shall be carried out only for the Monitoring Point(s) for which a release is tentatively indicated, and only for the Constituent of Concern(s) or Monitoring Parameter(s) which triggered the indication there, as follows:

1. Prediction Interval Retest

   If a Prediction Interval comparison was used in the initial test, the retest shall be carried out by comparing the retest sampling results to the interval which was originally used.

2. ANOVA Retest

   If a (parametric, natural log parametric, or non-parametric) ANOVA method was used in the initial test, the retest shall involve only a repeat of the multiple comparison procedure, carried out separately on each of the two new suites of samples taken from the indicating Monitoring Point;

3. Method of Proportions Retest

   If the Method of Proportions statistical test was used, the retest shall consist of a full repeat of the statistical test for the indicated constituent or parameter, carried out separately on each of the two new suites of samples from the indicating Monitoring Point;

4. Non-Statistical Method Retest

   The non-statistical method retest involves two separate variants as follows:

   a. For $VOC_{composite}$ - Because the $VOC_{composite}$ Monitoring Parameters is a single parameter which addresses an entire family of constituents likely to be present in any landfill release, the scope of the laboratory analysis for each of the two retest samples shall be the entire $VOC_{composite}$. A confirming retest shall validate the original indication even if the detected constituent(s) in the retest sample(s) differs from those detected in the sample which initiated the retest;

   b. For all other constituents - Because all Constituents of Concern, that are jointly addressed in the non-statistical test in Part III.C., remain as individual Constituents of Concern, the scope of the laboratory analysis for the non-statistical retest of Constituents of Concern shall address only those constituents detected in the sample which initiated the retest.

PART IV: REPORTING

A. GENERAL

A written Detection Monitoring Report shall be submitted periodically in accordance with the Monitoring Period dates defined in Part V. of this Monitoring and Reporting Program. The Discharger shall submit a report concerning the analysis of all Constituents of Concern each time the analysis is carried out in accordance with this Monitoring and Reporting Program. All reports, required under this section, shall be submitted no later than thirty days following the end of their respective Monitoring Period. All reports shall be comprised, as appropriate, of at least the following:

1. Letter of Transmittal

A letter transmitting the essential points shall accompany each report. Such a letter shall include a discussion of any violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a detailed time schedule for correcting said requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or above, or by his/her duly authorized representative, if such a representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

2. Compliance Evaluation Summary

The summary shall contain at least:

a. For each monitored ground water body, a description and graphical presentation of the velocity and direction of ground water flow under/around the Unit, based upon water level elevations taken during the collection of the water quality data submitted in the report.

b. For each monitoring well addressed by the report: a description of; the method and time of water level measurement, the type of pump used for purging and the placement of the pump in the well, and the method of purging (the pumping rate, the equipment and methods used to monitor field pH, temperature, and conductivity during purging, the calibration of the field equipment, results of the pH, temperature, conductivity, and turbidity testing, the well recovery time, and the method of disposing of the purge water).

c. For each Monitoring Point and Background Monitoring Point addressed by the report, a description of the type of pump, or other device, used, its placement for sampling, and a description of the sampling procedure (number of samples, field blanks, travel blanks, and duplicate samples taken; the type of containers and preservatives used; the date and time of sampling; the name and qualifications of the person actually taking the samples; description of any anomalies).

d. Discussion of the Post-Sampling Purge method in accordance with Chapter 15 [§2550.7(e)(12)(B) of Article 5] or evidence that the well will self-purge before the next sampling event.

3. Map

A map or aerial photograph showing the locations of observation stations, Monitoring Points, and Background Monitoring Points. Ground water contours shall be indicated to the greatest degree of accuracy possible.

4. Laboratory Results

Laboratory statements, concerning the results of all analyses, demonstrating compliance with Part II of this Monitoring and Reporting Program. Additionally results of all sampling and analyses performed at the site, out side the requirements of this Monitoring and Reporting Program, shall be reported and summarized.

5. Standard Observations

A summary and certification of completion of all Standard Observations (Part V.K.) for the Unit, for the perimeter of the Unit, and for the Receiving Waters.

B. ANNUAL SUMMARY REPORT

The Discharger shall submit an annual report to the Board covering the previous monitoring year. This report may be combined with the first quarter monitoring report and must meet the general requirements outlined in Part IV.A. above in addition to the following:

1. Graphical Presentation of Analytical Data

For each Monitoring Point and Background Monitoring Point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous five calendar years. Each such graph shall plot the concentration of one or more constituents over time for a given Monitoring Point or Background Monitoring Point, at a scale appropriate to show trends or variations in water quality. Maximum contaminant levels (MCL) shall be graphed along with constituent concentrations where applicable. Graphs shall plot each datum, rather than plotting mean values. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot downgradient data. On the basis of any aberrations noted in the plotted data, the Executive Officer may direct the Discharger to carry out a preliminary investigation, the results of which will determine whether or not a release is indicated.

2. Analytical Data

All monitoring analytical data obtained during the previous year, presented in tabular form as well as on 3.5" diskettes, in MS-DOS/ASCII format or in another file format acceptable to the Executive Officer. The Regional Board regards the submittal of data in hard copy and on diskette as "...the form necessary for..." statistical analysis [§2550.8(h) of Article 5], in that this facilitates periodic review by the Board's statistical consultant. Additionally complete data histories of each well shall be submitted in hard copy form or on diskette.

3. Leachate Results

Results of annual leachate system testing as required by §2543(d) of Article 5.

4. Discussion

A comprehensive discussion of the compliance record, the result of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements, and progress of the cleanup operation. A summary of the ground water and surface water analyses, indicating any changes made since the previous annual report.

5. Map

A map showing the areas where filling has taken place during the previous calendar year. Indicate areas, if any, in which filling has been completed or intermediate cover has been placed.

C. CONTINGENCY RESPONSE

1. Leachate Seep

   The Discharger shall, within 24 hours report by telephone concerning the discovery any previously unreported seepage from the disposal area. A written report shall be filed with the Board within seven days, containing at least the following information:

   a. Map—A map showing the location(s) of seepage;

   b. Flow rate—An estimate of the flow rate;

   c. Description—A description of the nature of the discharge (e.g., all pertinent observations and analyses); and

   d. Corrective measures—approved (or proposed for consideration) by the Regional Water Board Executive Officer.

2. Response to an Initial Indication of a Release

   Should the initial statistical or non-statistical comparison (under Part III. B. or C. of this Monitoring and Reporting Program) indicate that a release is tentatively identified, the Discharger shall:

   a. Within 24 hours, notify their designated Regional Water Board staff contact verbally as to the Monitoring Point(s) and constituent(s) or parameter(s) involved;

   b. Provide written notification by certified mail within seven days of such determination; and

   c. Either of the following:

      i. Shall carry out a discrete retest in accordance with Part III.D. of this Monitoring and Reporting Monitoring and Reporting Program (Monitoring and Reporting Program), or;

      ii. Make a determination, in accordance with Chapter 15, §2550.8(k)(7), that a source other than the waste management unit caused the evidence of the release or that the evidence is an artifact caused by an error in sampling, analysis, or statistical evaluation or by natural variation in the ground water, surface water, or the unsaturated zone.

   If the retest confirms the existence of a release, the Discharger shall carry out the requirements of Part C.4. In any case, the Discharger shall inform the Regional Water Board of the outcome within 24 hours of results becoming available, following up with written results submitted by certified mail within seven days.

3. Physical Evidence of a Release

   If either the Discharger or the Regional Board Executive Officer determines that there is significant physical evidence of a release [23 CCR §2550.1(3)], the Discharger shall conclude that a release has been discovered and shall:

   a. Within seven days notify the Regional Water Board of this fact by certified mail (or acknowledge the Regional Water Board's determination);

   b. Carry out the requirements of Part C.4. for all potentially-affected monitored media; and

   c. Carry out any additional investigations stipulated in writing by the Regional Water Board Executive Officer for the purpose of identifying the cause of the indication.

4. Release Discovery Response

   If the Discharger concludes that a release has been discovered the following steps shall be carried out:

   a. If this conclusion is not based upon monitoring for all Constituents of Concern, pursuant to Part I.E.5. of this Monitoring and Reporting Program, then the Discharger shall, sample for all Constituents of

Concern at all Monitoring Points in the affected medium and submit them for laboratory analysis within thirty days of discovery. Within seven days of receiving the laboratory analytical results, the Discharger shall notify the Regional Board, by certified mail, of the concentration of all Constituents of Concern at each Monitoring Point; this notification shall include a synopsis showing, for each Monitoring Point, those constituents that exhibit an unusually high concentration. Because the data from this scan is not to be statistically tested against background, only a single datum is required for each Constituent of Concern at each Monitoring Point [23 CCR §2550.8(k)(1)];

b. The Discharger shall, within 90 days of discovering the release, submit a Revised Report of Waste Discharge proposing an Evaluation Monitoring and Reporting Program that:

(1) Meets the requirements of 23CCR §2550.8(k)(5) and 23 CCR §2550.9; and

(2) Satisfies the requirements of 40 CFR §258.55(g)(1)(ii) by committing to install at least one monitoring well at the facility boundary directly downgradient of the center of the release, immediately after delineating the nature and extent of the release under 23 CCR §2550.9(b);

c. The Discharger shall, within 180 days of discovering the release, submit a preliminary engineering feasibility study meeting the requirements of 23 CCR §2550.8(k)(6); and

d. The Discharger shall immediately begin delineating the nature and extent of the release by installing and monitoring assessment wells as necessary to assure that the Discharger can meet the requirement [under 23 CCR §2550.9(b)] to submit a delineation report within 90 days of when the Regional Water Board directs the Discharger to begin the Evaluation Monitoring and Reporting Program. This report shall show the vertical and horizontal limits of the release for all Constituents of Concern. This delineation effort shall be carried out in addition to any ongoing Monitoring and Reporting Program (e.g., Detection Monitoring and Reporting Program); nevertheless, the Discharger's delineation effort shall encompass all relevant monitoring data.

5. Release Beyond Facility Boundary

Any time the Discharger concludes (or the Regional Board Executive Officer directs the Discharger to conclude) that a release from the Unit has proceeded beyond the facility boundary, the Discharger shall so notify all persons who either own or reside upon the land that directly overlies any part of the plume (Affected Persons).

a. Initial notification to Affected Persons shall be accomplished within 14 days of making this conclusion and shall include a description of the Discharger's current knowledge of the nature and extent of the release.

b. Subsequent to initial notification, the Discharger shall provide updates to all Affected Persons, including any persons newly affected by a change in the boundary of the release, within 14 days of concluding there has been any material change in the nature or extent of the release.

c. Each time the Discharger sends a notification to Affected Persons (under a. or b., above), the Discharger shall, within seven days of sending such notification, provide the Regional Board with both a copy of the notification and a current mailing list of Affected Persons.

D. RESPONSE TO VOC DETECTION IN BACKGROUND

1. Except as indicated in D.2. below, any time the laboratory analysis of a sample from a Background Monitoring Point shows either (1) two or more VOCs above their respective Method Detection Limit, or (2) one VOC above its respective Practical Quantitation Limit, the Discharger shall;:

   a. Within 24 hours, notify the Regional Board by phone that possible Background Monitoring Point contamination has occurred,

   b. Follow up with written notification by certified mail within seven days, and

   c. Within thirty days, obtain two new independent VOC samples from that Background Monitoring Point and send them for laboratory analysis of all detectable VOCs.

   If either or both the new samples validates the presence of VOC(s), at the Background Monitoring Point, the Discharger shall:

   a. Within 24 hours, notify the Regional Board about the VOC(s) verified to be present at that Background Monitoring Point,

   b. Provide written notification by certified mail within seven days of validation, and

   c. Within 180 days of validation, submit a report, acceptable to the Executive Officer, which; examines the possibility that the detected VOC(s) originated from other than the Unit, and proposes appropriate changes to the Monitoring and Reporting Program.

2. If the Executive Officer determines, after reviewing the report submitted under Part IV.D.1. above, that the VOC(s) detected originated from a source other than the Unit, the Executive Officer will make appropriate changes to the Monitoring and Reporting Program.

3. If the Executive Officer determines, after reviewing the report submitted under Part IV.D.1., that the detected VOC(s) most likely originated from the Unit, the Discharger shall assume that a release has been detected and shall immediately begin carrying out the requirements of Part IV.C.4. of this Monitoring and Reporting Program.

PART V: DEFINITION OF TERMS

A. AFFECTED PERSONS

All individuals who either own or reside upon the land that directly overlies any part of that portion of a gas- or liquid-phase release that has migrated beyond the facility boundary.

B. CONCENTRATION LIMIT

The concentration of a constituent, above which a release is indicated. Concentration limits are either proposed by the Discharger for Executive Officer consideration of approval, or, in cases of corrective action, set by the Board. Concentration Limits are discussed in further detail in Part II.B.

C. CONSTITUENTS OF CONCERN (COC)

Those constituents which are likely to be in the waste in the Unit or which are likely to be derived from waste constituents, in the event of a release. The Constituents of Concern for this Unit are listed in Part I.E.5.

D. MATRIX EFFECT

Any increase in the Method Detection Limit or Practical Quantitation Limit for a given constituent as a result of the presence of other constituents, either of natural origin or introduced through a release, that are present in the sample being analyzed.

E. METHOD DETECTION LIMIT

The lowest concentration at which a given laboratory, using a given analytical method, to detect a given constituent, (in spite of any Matrix Effect) can regularly differentiate, with 99% reliability, between a sample which contains the constituent and one which does not. The Method Detection Limit shall reflect the detection capabilities of the specific analytical procedure and equipment used by the laboratory.

F. MONITORED MEDIA

Those water bearing media that are monitored pursuant to this Monitoring and Reporting Program. The Monitored Media may include: (1) ground water in the uppermost aquifer, in any other portion of the zone of saturation (§2601 of Chapter 15) in which it would be reasonable to anticipate that waste constituents migrating from the Unit could be detected, and in any perched zones underlying the Unit, (2) any bodies of surface water that could be measurably affected by a release, and (3) soil pore liquid beneath and/or adjacent to the Unit.

G. MONITORING PARAMETERS

A short list of constituents and parameters used for the majority of monitoring activity. The Monitoring Parameters for this Unit are listed in Part I.E.3. of this Monitoring and Reporting Program.

H. MONITORING PERIOD

The duration of time during which a sampling event must occur. The Monitoring Period for analysis of all Constituents of Concern is five years, the first Constituent of Concern Monitoring Period ends May 18, 1995; the Monitoring Period for the Monitoring Parameters is quarterly. Quarterly monitoring will be performed within the following time frames: Winter (January 1 to March 31), Spring (April 1 to June 30), Summer (July 1 to September 30), Fall (October 1 to December 31). The due date for any given report will be 30 days after the end of its Monitoring Period, unless otherwise stated.

I. PRACTICAL QUANTITATION LIMIT

The lowest acceptable calibration standard (acceptable as defined for a linear response or by actual curve fitting) times the sample extract dilution factor times any additional factors to account for matrix interferences. The PQL shall reflect the quantitation capabilities of the specific analytical procedure and equipment used by the laboratory. PQLs reported by the laboratory shall not simply be restated from USEPA analytical method manuals. In relatively interference-free water, laboratory-derived PQLs are expected to closely agree with published USEPA PQLs. If the lab suspects that, due to matrix or other effects, the quantitation limit for a particular analytical run differs significantly from the laboratory-derived PQL, the results should be flagged accordingly, along with an estimate of the quantitation limit achieved.

J. SIGNIFICANT STORM

Any storm of ≥1 inch of rain over a 24 hour period or ≥2 inches of rain within 7 days.

K. STANDARD OBSERVATIONS (As referenced in "A. SITE INSPECTIONS")

1. For Receiving Waters:

   a. Floating and suspended materials of waste origin—presence or absence, source, and size of affected area;

   b. Discoloration and turbidity—description of color, source, and size of affected area;

   c. Evidence of odors—presence or absence, characterization, source, and distance of travel from source;

   d. Evidence of beneficial use— presence of water-associated wildlife; and

   e. Flow rate to the receiving water.

2. Along the perimeter of the Unit:

   a. Evidence of liquid leaving or entering the Unit, estimated size of affected area, and flow rate (show affected area on map);

   b. Evidence of odors; presence or absence, characterization, source, and distance of travel from source;

c. Evidence of erosion and/or of exposed refuse; and

d. Inspection of all storm water discharge locations for evidence of non-storm water discharges during dry seasons, and integrity during wet seasons.

3. For the Unit:

a. Evidence of ponded water at any point on the waste management facility (show affected area on map);

b. Evidence of odors; presence or absence, characterization, source, and distance of travel from source;

c. Evidence of erosion and/or of daylighted refuse;

d. Compliance with Storm Water Pollution Prevention Plan, insuring that the terms of the general permit are properly implemented; and

e. Integrity of all drainage systems

L. RECEIVING WATERS

Any surface water which actually or potentially receives surface or ground waters which pass over, through, or under waste materials or contaminated soils.

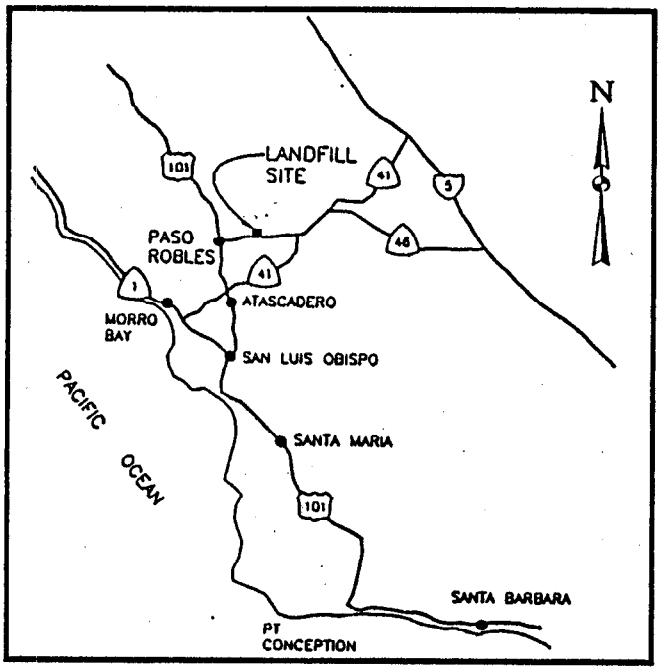
M. VOLATILE ORGANICS COMPOSITE MONITORING PARAMETER ($VOC_{composite}$)

$VOC_{composite}$, a composite parameter that encompasses a variety of VOCs. The constituents addressed by the VOCcomposite Monitoring Parameter include all VOCs detectable using USEPA Method 8260, including at least all 47 VOCs listed in Appendix I to 40 CFR 258, **Attachment A** to this Monitoring and Reporting Program, and all unidentified peaks.

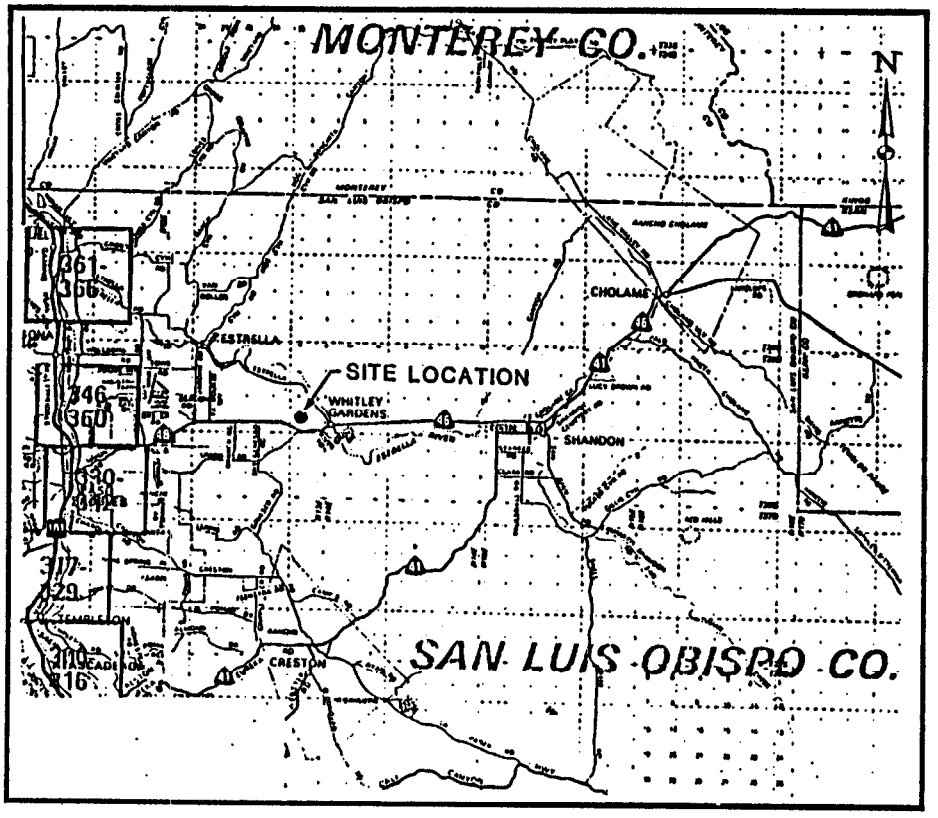
ORDERED BY Paul Jagan
for Executive Officer

2/21/95
Date

MSL2/95-33.MRP



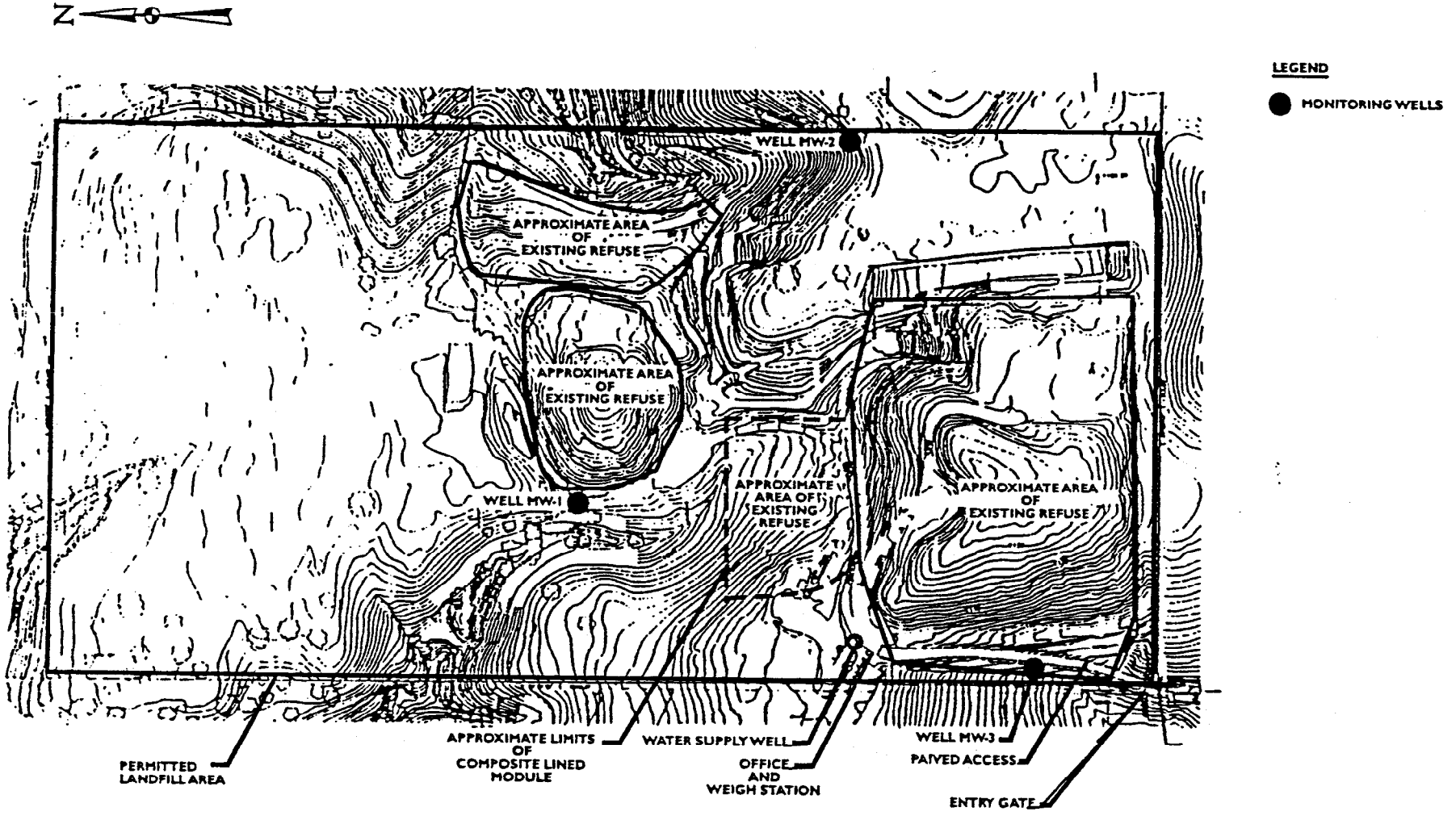
LOCATION MAP



VICINITY MAP

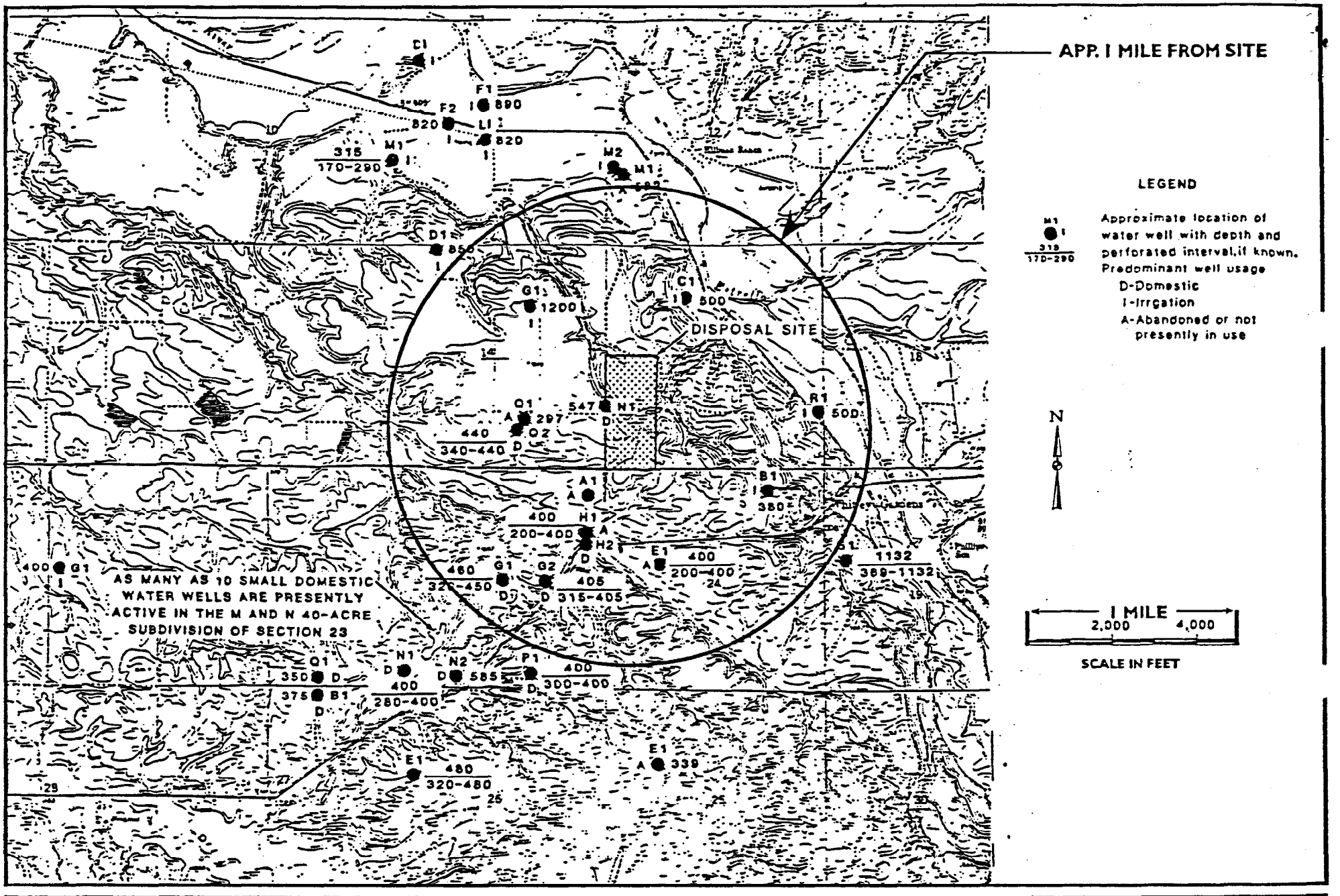
PASO ROBLES
CLASS III LANDFILL
SAN LUIS OBISPO COUNTY, CALIFORNIA

ATTACHMENT A
LOCATION MAP



PASO ROBLES
CLASS III LANDFILL
SAN LUIS OBISPO COUNTY, CALIFORNIA

ATTACHMENT B
SITE MAP



PASO ROBLES
CLASS III LANDFILL
SAN LUIS OBISPO COUNTY, CALIFORNIA

ATTACHMENT C
AREA WELL LOCATIONS